

Day 82

Q. You are given N binary strings of length N each. You need to find a binary string of length N which is different from all of the given strings.

Note:

A binary string is defined as a string consisting only of '0' and '1'.

A string is considered different from another string when they have different lengths, or when they differ in at least one position.

Input Format

The first line will contain T - the number of test cases. Then the test cases follow.

The first line of each test case contains N - the number of strings and length of strings.

Each of the next N lines contains a binary string of length N.

Output Format

For each test case, print on one line a binary string of length N, which is different from all of the given strings. If there are multiple possible answers, print any.

Sample Input

```
2
3
101
110
100
4
1100
1010
0100
0010
```

Sample Output

```
111
1101
```

main.py

```
test=int(input())
for _ in range(test):
    n=int(input())
    ls=[]

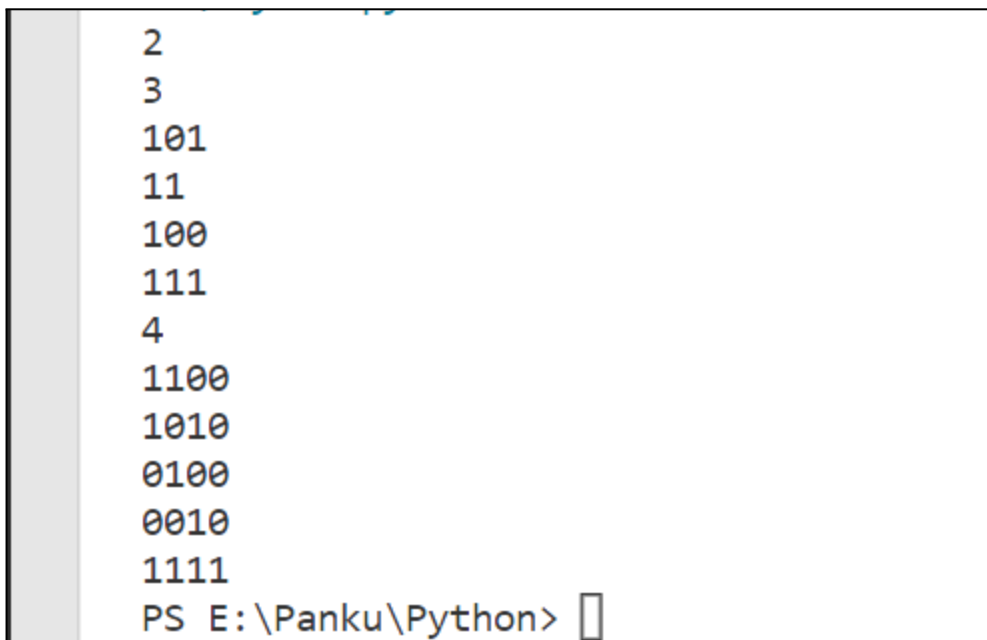
    for _ in range(n):
        ls.append(int(input(),2))

    mx=len(str("{0:b}".format(max(ls))))
```

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```
for i in range((2**mx)-1,min(ls),-1):  
    if i not in ls:  
        print("{0:b}".format(i))  
        break
```

output



```
2  
3  
101  
11  
100  
111  
4  
1100  
1010  
0100  
0010  
1111  
PS E:\Panku\Python>
```